

HFUG

ATLAS OF ZEOLITE STRUCTURE TYPES

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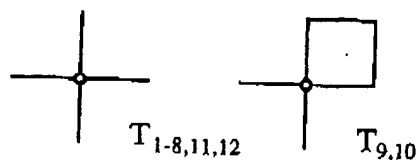
Fourth Revised Edition
1996

Published on behalf of the
Structure Commission of the International Zeolite Association

by

Elsevier

London Boston Singapore Sydney Toronto Wellington

MFI**ZSM-5****Pnma**Framework density: 17.9 T/1000 Å³Loop configuration
of T-atoms:

Coordination sequences:

T ₁ (8)	4 12 22 41 61 88 125 159 198 250
T ₂ (8)	4 12 22 39 64 91 117 158 209 247
T ₃ (8)	4 12 23 37 62 91 120 157 206 250
T ₄ (8)	4 12 21 36 61 90 122 159 196 251
T ₅ (8)	4 12 24 38 63 93 123 157 206 247
T ₆ (8)	4 12 22 40 61 88 124 156 197 253
T ₇ (8)	4 12 24 38 56 90 132 164 193 241
T ₈ (8)	4 12 21 37 63 90 121 155 201 253
T ₉ (8)	4 11 23 39 62 93 119 153 204 254
T ₁₀ (8)	4 11 22 36 61 93 120 154 200 255
T ₁₁ (8)	4 12 22 38 59 92 125 159 202 250
T ₁₂ (8)	4 12 23 38 59 89 126 161 196 246

Channels: {[010] 10 5.3 x 5.6 ↔ [100] 10 5.1 x 5.5}***

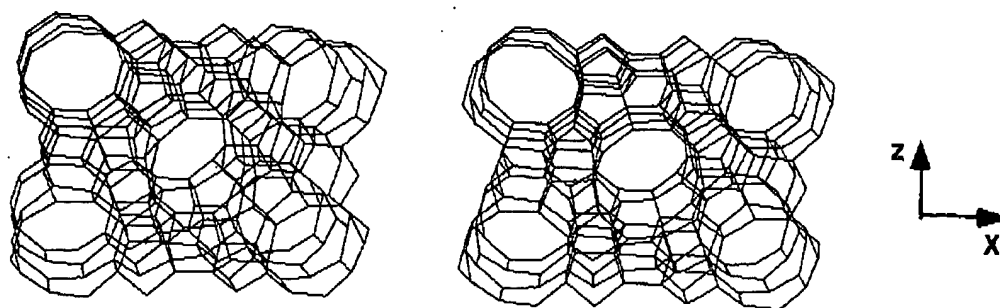
Type material: **ZSM-5** Na_n[Al_nSi_{96-n}O₁₉₂] ~ 16 H₂O
 with n < 27
 orthorhombic, Pnma, a=20.1, b=19.9, c=13.4 Å^(1,2)

Isotypic framework structures: Silicalite⁽³⁾ (see also Appendix MFI)

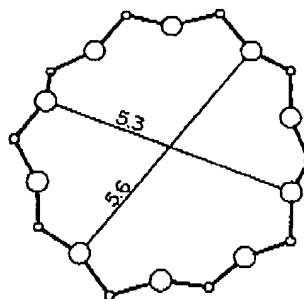
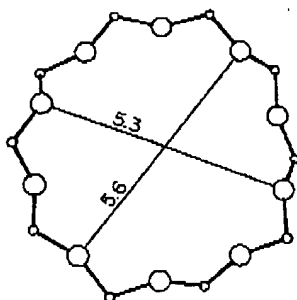
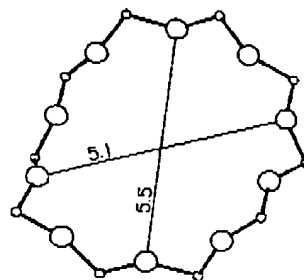
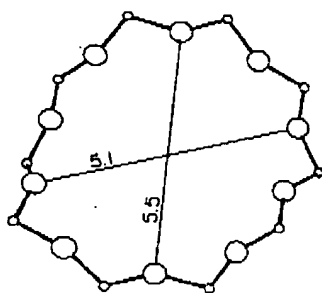
Alternate designations: Silicalite I

References:

- (1) G. T. Kokotailo, S. L. Lawton, D. H. Olson and W. M. Meier, *Nature* **272**, 437 (1978).
- (2) D. H. Olson, G. T. Kokotailo, S. L. Lawton and W. M. Meier, *J. Phys. Chem.* **85**, 2238 (1981).
- (3) E. M. Flanigen, J. M. Bennett, R. W. Grose, J. P. Cohen, R. L. Patton, R. M. Kirchner and J. V. Smith, *Nature* **271**, 512 (1978).

8 T₁₋₁₂(1)**MFI**

framework viewed along [010]

10-ring viewed along [010]
(straight channel)10-ring viewed along [100]
(sinusoidal channel)

(See Appendix MFI)

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